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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,253	05/02/2001	Neil C. Singer	339925US71	5037

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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PHAM, THIERRY L

ART UNIT	PAPER NUMBER
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2625

NOTIFICATION DATE	DELIVERY MODE
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07/07/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
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<b>Office Action Summary</b>	<b>Application No.</b> 09/847,253	<b>Applicant(s)</b> SINGER ET AL.	
	<b>Examiner</b> THIERRY L. PHAM	<b>Art Unit</b> 2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-14, 17, 18 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-14, 17, 18, 21, 22 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

- This action is responsive to the following communication: A response to non-final office action filed on 4/3/2009.
- Claims 2-14, 17-18, 21-26 are currently pending, wherein claims 22-26 are newly added; claims 1, 15-16, 19-20 have been canceled.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-7, 9, 12-14, 21, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beauchamp (US 6203139) and in view of Singer et al (WO 9945535).

Regarding claim 22, Beauchamp discloses a computer peripheral (inkjet printer, fig. 1), comprising: an electromechanical mechanism (driver roller 29, fig. 1) configured to advance paper (advance paper, col. 2, lines 42-64); and acoustic frequencies of the paper (paper noise, col. 4, lines 17-38).

Beauchamp fails to teach and/or suggest a circuitry configured to shape an input to the electromechanical mechanism.

Singer teaches a circuitry (controller/processor 73, fig. 10A-10B, page 16, lines 7-24) configured to shape an input to the electromechanical mechanism (shaped input via using Input Shaping, page 17, lines 1-28, fig. 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify inkjet printer of Beauchamp to include an circuitry to shape an input to the electromechanical mechanism as taught by Singer to suppress/reduce noises generated within print media (paper).

Therefore, it would have been obvious to combine Beauchamp with Singer to obtain the invention as specified in claim 22.

Regarding claim 2, Singer further discloses the computer peripheral of claim 22 in which a trajectory obtained by the shaping results in maximum speed (quick or maximum speed, page 15, lines 22-23, fig. 4) of paper advance subject to acoustic vibration, structural vibration, and motion constraints.

Regarding claim 3, Singer further discloses the computer peripheral of claim 22 wherein a trajectory of the mechanism obtained by the shaping results in quite operation (quite, fig. 4) of paper advance.

Regarding claim 4, Singer further discloses the computer peripheral of claim 22 wherein a trajectory of the mechanism obtained by the shaping, results in vibration-reduced operation (noise level or vibration-reduced, fig. 5, page 17, lines 3-4) of paper advance.

Regarding claim 5, Singer further discloses the computer peripheral of claim 22 wherein a trajectory of the mechanism obtained by the shaping, reduces unwanted acoustic frequencies (unwanted frequencies, page 11, lines 12-24) of the paper.

Regarding claim 6, Singer further discloses the computer peripheral of claim 22 further including a sensor (sensor 75, fig. 10B) responsive to the dynamic response of the peripheral.

Regarding claim 7, Singer further discloses the computer peripheral of claim 22 wherein the sensor is an accelerometer (page 72, lines 22-23).

Regarding claim 9, Singer further discloses the computer peripheral of claim 6 wherein an output from the sensor is used by the circuitry to provide the shaped input (page 11, lines 13-22 and page 14, lines 22-30).

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Regarding claim 12, Singer further discloses the computer peripheral of claim 22 further comprising a user interface (figs. 4-6).

Regarding claims 13 and 26, Singer further discloses the computer peripheral of claim 1 wherein the trajectory of the mechanism is quick, quite, or in between (fig. 4).

Regarding claim 14, Singer further discloses the computer peripheral of claim 22 wherein the trajectory of the mechanism obtained by the shaping suppresses unwanted frequencies (unwanted frequencies, page 11, lines 12-24) of the paper.

Regarding claim 21, Singer further discloses the computer peripheral of claim 22 further including a user control configured to tune the computer peripheral to its environment (e.g. temperature, resistance, and etc., page 67, lines 3-16).

Regarding claims 24-25, Beauchamp further teaches the computer peripheral of claim 21, wherein the user control includes a mechanism to specify a type of the paper (col. 2, lines 43-50).

Claims 8, 10-11, 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beauchamp and Singer as described in claim 22 above, and further in view of McConnell et al (US 6011373).

Regarding claim 8, Singer teaches a method for suppressing noise and/or vibration within a computer peripheral device using sensor 75, but does not teach and/or suggest wherein a sensor is a microphone.

McConnell, in the same field of endeavor for vibration suppression of a computer peripheral device, teaches a well-known example of a microphone for measuring sound/noise of the computer peripheral device (a sensor device for measuring sound/noise of the printer device, col. 22, lines 35-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify vibration suppression system/method of Singer to include

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microphone sensor or sound sensor as taught by McConnell because of a following reason: (●) accurate sound/or noise level can be measured via using microphone sensor or sound sensor so that a better output response can be generated to accurately reduce/suppress vibration/noise within the computer peripheral.

Therefore, it would have been obvious to combine Singer with McConnell to obtain the invention as specified in claim 8.

Regarding claims 10-11, 17-18, McConnell further discloses the peripheral of claim 22 wherein the peripheral is a printer/scanner (inkjet printer, col. 22, lines 35-37, multifunctional printer including scanner (i.e. copy machine) is widely available and known in the art, and also notes printer is just an example of an physical output system as discussed by McConnell, other physical output system also applied).

### ***Response to Arguments***

Applicant's arguments, see pages 6-7, filed 4/3/2009 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art reference.

### ***Allowable Subject Matter***

Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THIERRY L. PHAM whose telephone number is (571)272-7439. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thierry L Pham/

Examiner of Art Unit 2625